

Aviation News

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From Planes to Picket Line: Symbol of last week's walkout of TWA pilots, who want fatter pay envelopes for four-engine operation, is this little group of Air Line Pilot Association members, trudging in methodical circles before the airline's maintenance hangars at Kansas City. Picture was taken the first day of the strike. Next morning the nattily-uniformed pickets failed to reappear, and shop workers and maintenance men who had refused to cross the line were back at work. See story on page 7. (Press Assn. Photo)



American Airlines DC-4's

The 3000 psi hydraulic system of the DC-4's operated by American Airlines has the Vickers Units shown below.

The Vickers Piston Type Pump has a maximum recommended operating pressure of 3000 psi and maximum recommended speed of 3750 rpm at which its output is 12.5 horsepower. As the pump weighs only 6.6 lb it has the exceptionally low weight ratio of 0.21 lb. per hp. The volumetric efficiency of 94% and the overall efficiency of 89% are exceptionally high for 3000 psi units.

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Vickers Bulletin 45-41 gives additional information about the most complete line of 3000 psi hydraulic equipment for aircraft.

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Washington Observer



PAAS DOMESTIC BUILD-UP—Pan American's announced its promising five-hour transcontinental airway service next year with new Republic R44s and the public's attention. But PAA bows aside on the fact that it doesn't have the money. The company made no friends for PAA at CAB. Actually, CAB "nixed" PAA to sock down its series after appearance of the first insertion. CAB feels it has been put on the spot. In the past such strategy on the part of a branch carrier has been followed frequently by adverse decisions.

WHAT WILL JUSTICE DO?—Assistant Attorney General Borge and other Anti-Trusters are pondering: Are they obliged to interfere on PAA's behalf in its domestic route case? Juan Tripp's Washington operatives point out quickly, and with some subtlety, that the department in its report to Congress on international aviation recommended domestic routes for Pan American if domestic companies were given international routes. Although PAA has asked Justice to follow through, Borge believes Justice *Never* he doubts if the department will.

WHAT IS AN AIRLINE?—The certified carriers are flailing over the advertising campaign of noncertified services. As CAB Chairman Landon pointed out at the National Aviation Clinic, uncertified operators are not airlines, in the eyes of CAB, sole certifying agency. How is the public to be sold the difference, so they are understood? ATA President Emory Lind suggests that each certified airline president write letters to the editors of all newspapers along their routes, emphasizing how non-scheduled and scheduled companies differ.

BILLION DOLLARS A YEAR—Under-Secretary of State Clayton's forecast that within a few years American will be spending a billion and a half dollars annually on aircraft abroad added flames to the inter-city lines' passion for air transportation. It was barely two years ago that assembly executives were telling newsmen they had nothing to fear from the infant air transport industry. What they and the airlines now find in reality is that the case would never have arisen if they had already been in air transportation when the Civil Aeronautics Act went into effect.

UNIFICATION WINS AT CLINIC—The resolution favoring unification of the armed services adopted at the National Aviation Clinic had its special interest for insiders. Some weeks before the Clinic, Assistant

Secretary of War for Air, W. Stuart Symington, was invited to appear as a speaker. He accepted on condition that he could choose his own subject—military. Clinic authorities hastily backtracked on the somewhat surprising theory that nonmilitary questions should not come up on the program. Symington did not appear, but the resolution was duly presented to the Clinic by the official resolution committee and went through.

RESEARCH BOARD SURPRISE—Army and Navy, which are financing or are concerned in most Government-sponsored research, were surprised by formation of the Presidential Research Board, headed by John R. Stueben, director of the Office of War Mobilization and Reconstruction. The services were not advised in advance, although both—as well as NACA—are represented on the Board. The Board is now an executive subcommittee for the National Science Foundation which was proposed and debated last session, but it will study the need for coordination in contract letting to that industrial research facilities and personnel can be used to best advantage.

SHOW POLICY STILL JELLING—The solid sounding announcement that the Aeronautical Show Council (composed of most private and Government facilities in aviation) has adopted a policy on air shows, races, and exhibitions actually means little. In essence, the "policy" adopted was the decision to present a three-man committee to establish standards and rules for encouraging and discouraging in shows. Those rules will comprise the policy. Committee is William P. MacCormack, general counsel of the National Aeronautics Association, John E. P. Murphy, associate director, Aircraft Industries Association, and Lowell H. Swenson, executive vice-president, NAA.

MR. ARNOLD WARNS THE AIRLINES—ATA's vice-president for operations, Milton W. Arnold, has told the airlines they are short-sighted in their unwillingness to schedule regular flights on a third New York coastal—Floyd Bennett Airport—to ease congestion in the area this winter. Traffic executives apparently still underestimate the crucial problem they will meet during instrument conditions, with this year's unprecedented traffic. An additional five-to-six mile of 15 minutes for passengers should be preferred over cancellation of from 10 to 50 percent more flights than at present, Arnold says. Furthermore, if the industry fails to make this sacrifice, it must take the consequences of any restrictions ordered by CAA.



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Look at the facts about the Martin 2-0-2 cargo-carrier. That's performance! Then remember that Martin has sold over twice as many cargo-equipped airplanes as its nearest competitor. Result: greater production and a low purchase price. That's economy!

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FAST FACTS ABOUT THE MARTIN 2-0-2 CARGO-CARRIER

- 148 performance figures (figures for Robert)
- Standard Gross Weight... 10,000 lbs.
- Payload Capacity... 12,000 lbs.
- Maximum Operating Range 1985, 2000 mi. with reserve of 300 mi.—10 min.
- Operational Ceiling for T.O. weight, no engine operation... 12,000 ft.
- Maximum Operational Ceiling (T.O. weight, two engines)... 19,000 ft.
- Landing Speed at 10,000 lb. and 40% flaps... 70 mi/h.
- E. & S. Range Length for Landing at Sea (Level)... 2100 mi. on Gross Weight, 10,000 lb.
- Fuel Capacity... 1400 Gals.
- Operating Cost Per Hour... as low as \$100
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- Martin provides all the services you need for the following airlines: United, Continental, Chicago & Southern, Gulf International, Pacific Northwest, Japan, Indian Airlines, Pakistan, Ceylon, Air India, etc.

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TWA Pilot Strike Forecasts Wage Pattern For Airlines

Carrier estimates weekly loss at \$2,000,000 as dispute forces layoff of 15,000 ground employees; ALPA extends demands to American Airlines on DC-3 flights.

By BLAINE STURGESFIELD

Whatever increases may be gained by pilots in their \$2 million-a-week strike against Trans World Airlines will be used as a yardstick by Air Line Pilots Association in demands practically across the airline system board.

Negotiations already begun by American Airlines and ALPA before the National Railway Mediation Board are the second phase of the pilots' pay campaign, including a demand for a 33 percent hike on DC-3 flying pay. ALPA hopes the other operators, observing the grim shutdown of TWA, will come across without a strike.

TWA Bears Brunt. That TWA is bearing the brunt of ALPA's push on the wage option, Jack Trye, TWA president, said. The company cannot meet the union pay demands out of profits, because it has none. This means the company is vulnerable to strike action. Struckliners are working on an average cost of strike cost, following unofficial estimates of \$2 million per week.

CAR estimates had no precedent for options. But the board will have to show eventually whether the Government is responsible for TWA's plight. A certificate of convenience and necessity is in effect a guarantee against financial failure of a route operation, and one way or another the taxpayers will foot the bill.

Frye said he could not meet the pilots' pay demands except with more revenue. The obvious source of such additional income would be mail, on which entry was not by CAB. TWA would not raise passenger and cargo rates unless other airlines did.

CAB Hears OE. CAB and CAA,

after a hotly huddled, announced they had no legal authority to interfere in the strike. CAB can influence pilot pay and other airline cost items on a long-term basis, in connection with rate cases. But inflated costs, and forced cuts in air strikes, cannot be charged to imprudent management.

Resumption of TWA-ALPA negotiations under auspices of the National Railway Mediation Board, as recommended by the White House, held little promise, not only because it is ineptness, but because Board members repeatedly expressed antipathy with ALPA during the year-long effort at settlement. Failure of mediation finally led to appointment of President Truman's ad hoc emergency

board, whose findings were accepted and put into effect by TWA. But because ALPA rejected the recommendation, it has no legal standing.

Though Frye in effect has asked that his airline be seized and operated by the Government, such action seems unlikely. The shutdown is a staggering blow to TWA, on top of its heavy dependence on Constellation and their later grounding, but it is not a national emergency. Furthermore, the Administration has loosened its grip on the wage-price line, and is not disposed to interfere in any more strikes.

After three strike-grounded days Frye announced the immediate layoff without pay of 15,000 TWA employees at 23 states and 15 countries. He said that, with the company's income cut off, it could not afford to continue the enormous wage expense. The payment multiple immediately began causing political pressure against ALPA.

Frye said he and his staff were working 24 hrs. a day to end the strike either by Government action or negotiation, and again invited the union to discuss and discuss our problem easily."

Claims Vesp. Facts and figures of the opposing camps varied widely during more than a year of coexistence. A new wage survey by TWA says it put the Emergency Board's recommended wage into effect on August 6, and though Bethesda was invited after that to conduct a new survey, he heard from him till October 16, when he walked into Frye's Washington office and demanded an answer to an ultimatum.

Frye and Bethesda's proposal, if combined with, would leave several western still unsettled, and he was equipped to refuse, with the result that his fleet of 100 planes, on 25,270 miles of surveys from California to Alaska, were grounded as 1400 pilots walked away, leaving thousands and hundreds of passengers stranded. Only 400 4-engine pilots' pay rates are at issue in the strike.



Rebukes Fenders. David L. Schuch, president of the Air Line Pilots Association, as he posed for questions at ALPA's Chicago headquarters after his announcement of the union's strike against TWA.

DeBrock says he has traveled every avenue of mediation, that a strike was the only means of meeting TWA's "procrastinating tactics." He says he rejected the Emergency Board's recommendation because it amounted to an alleged pay slash as high as 34.7 percent for some pilots, and was 13.1 percent less than the company had already offered.

ALPA says it wants \$600.31 per month for first year earnings, and \$1,096.98 per month for most senior pilots on Skymasters. On Constellation the equivalent demands are \$1070.76 and \$1127.63. TWA says that same demands, figured on 77 flying hours per month, half day and half night, for men of top seniority, are \$11,163 per year on Skymasters and \$14,248 on Constellation. Prescott says, in accordance with the Board's recommendations, is \$12,328 and \$11,915 respectively. Prescott pay was \$9,745 and \$10,124 respectively, all with variations for overruns. Flye said present pay for co-pilots is 36 percent above revenue rates.

Ex-Service Pilots Offer to Man Planes

TWA expressed immediate interest in a proposal by the Military Pilots Association that its members break the ALPA strike by manning TWA planes. MPA was organized several months ago from Army and Navy air force pilot veterans to battle ALPA on seniority rights for ex-service pilots on the airlines.

MPA said it could supply TWA's needs for DC-3 and DC-4 pilots immediately with 5 to 10 hours' checkout time per pilot required for Certificate-A. A long term contract was offered at terms negotiated at \$1,200 a month for first pilots on foreign runs and \$1,800 a month on domestic runs. Co-pilot pay would be \$350 a month for foreign duty and \$300 a month for domestic. MPA spokesman emphasized that these terms were merely suggestions and not definite commitments.

Only hitch in the MPA proposal would be that CAA would have to recognize green instrumented cards for airline operations temporarily since not enough MPA pilots have airline pilot ratings. MPA spokesmen emphasized that Army and Navy qualifications for green instrumented cards were comparable.

in flight tests and route checks for the airline ratings and pointed out that the bulk of its membership were former Air Transport Command and Naval Air Transport Service pilots with world wide route experience.

MPSA spokesman said that in order to get enough pilots to fill TWA's demands a long term contract would be necessary since its members would not want to risk their present careers for short term settlement of a wage dispute.

MPSA has been at odds with ALPA over alleged discrimination against ex-service pilots on the airlines due to the ALPA-imposed seniority system. MPSA has a membership of 3,000 pilots at a time of \$9 a year compared with ALPA's annual dues of \$160 for first pilots and \$25 for co-pilots.

CAB Crack-Down Hits Five Carriers

CAB cracked down on five of the country's most important uncertificated carriers last week in a move expected to shake the foundations of unscheduled air transport.

Airlines told by the Board to show cause why they should not be ordered to "cease engaging in scheduled air transportation in violation of sections 401 (A) and 409 (A) (4) of the Civil Aeronautics Act": American Air Export and Import Co., Miami Springs, Fla.; Canbe Airways, Miami; Trans-Caribbean Air Cargo Lines, New York; Trans-Luxury Airlines, New York; and Texas Air Lines, Houston.

The earnings cited will be given a public hearing before a CAB examiner.

National Airmail Drive is Launched

National Airmail Week, launched yesterday by presidential proclamation, is another high spot in the campaign by the airlines and the Post Office to sell the public on the greater use of this type of service.

The department has printed and issued a postmaster's manual on 8-oz. airmail promotion and the

strates, cooperating with it, have placed advertisements in 1,244 daily papers in 1,261 cities and towns, with total circulation of 51,008,590. In addition, some 100,000 business mail users are being contacted through a direct airmail service.

Air Transport Association and representatives of individual airlines in more than 400 municipalities also are furnishing the same

Scattered airline reports on results of the early days of the new nickel domestic rate, effective Oct. 1, are optimistic. Western and its annual volume had increased 100 percent over already revised loadings. Northwest officials forecast that the line's mail loads will increase 90 percent in the next three months and 100 percent in six months. United's annual volume

Surplus Cornies

Army Air Forces has de-
clared its remaining 30 Lock-
heed Constellation (C-69) sur-
plus and turned them over to
War Assets Administration.

WAA spokesman indicated the planes would probably be placed on priority sale and estimated it would cost \$800,000 to convert them for civil use.

Gen Carl Spaatz, AAF commander, said the AAF was getting rid of the Conquest as an economy measure because acquisition of stock of spares and modification to meet present Conquest safety standards would be too expensive. The B surplus planes were the first to come off the Lockheed line and have been in service with the ATC for over a year.

Kochel Wind Tunnels Are Rebuilt by Navy

White Oak Md. ordnance laboratory gets vacuum powered supersonic tunnels from Germany.

Germany's most famous set of wind tunnels, the birthplace of the V-2 rocket bombs, have been dismantled, shipped to this country and are now being reassembled by the Navy at its White Oak, Md., ordnance laboratory.

The three tunnels, originally at Peenemünde and later moved to Koebel in Bavaria, are being studied closely by U.S. engineers more because they illustrate again the excellent results German scientists were able to achieve by "essais," than because there is much to be learned from them.

Although the tunnels have speeds of up to Mach number 4 (about 3,300 mph), equal to the performance of the best tunnels in this country, their overall performance is not as high and because of the method of construction and operation, tests of long duration cannot be made.

Howtunnels Worked—Main difference between U.S. tunnels and the Kochel tunnels is that the former are "blow-down" types wherein air is pushed down the tunnels at terrific speed by great force. This requires a tremendous power source. Lacking the power available in this country, Germany utilized the principle of air rushing into a vacuum to get great speeds in the Kochel tunnels.

Central object in the Koebel nest is a glass sphere 52 ft in diameter which is pumped free of air. When valves are opened between the tunnels and the sphere, air rushes in and thus provides the means to get wind tunnel observations. While operation of this "suck-in" type of tunnel is far cheaper than utilization of a blow-down tunnel, observations of test sections must be made quickly and then interrupted for a lengthy period of time while the sphere is pumped

Intermittent Operation—Two of the tunnels are intermittent in operation, with a quick-acting valve beyond the test section permitting rapid closing once desired readings are taken. In this way, pressure in the sphere is kept low enough to assure supersonic flow for a number of short intervals. Test sections of both of these tunnels measure about 15% in square.

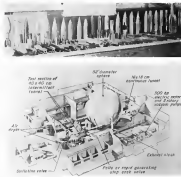
The third tunnel has a test section about seven in square and is complete in operation until the

sphere is filled. Continuous operation is possible because of the smaller size of the tunnel.

All of the most efficient German aerodynamic and ballistic devices were tested in the Kockel tunnels which were manned by the best scientists in that country. Nine of these key German staff men have been brought to this country and are assisting in the construction of the tunnels which are expected to be in operation next year.

Sherman Gets Post With New Air Group

John Sherman, formerly assistant director of the economic bureau of CAB, has been appointed executive secretary of the reorganized Air Coordinating Committee (Aviation News, Sept. 30). Myron A. Tracy, former working secretary of the old ACC, will be assistant executive secretary of the new group.



Nazis' Encapsulated Wind Tunnel. Now being installed at the Naval Ordnance Laboratory, White Oak, Md., is this part of three German wind tunnels which was originally erected at Peenemünde, later renamed to Nacheil, Germany, and was dismantled to be brought to this country. Key spec is the 50-inch 52 ft diameter sphere in which is evolved a vacuum into which are flown from the tunnels. In these tunnels V-models were tested as well as models of many other German projectile some of which are shown in the other photo. (Navy photo)

Clashes Between Rival Factions Enlivens Final Clinic Sessions

Construct freight carriers and scheduled airlines tangle on CAB regulation; operators and private pilots argue on forced landing practice.

By ALEXANDER M-SURELY

Two debates, one between scheduled airlines and construct freight carriers, and one between operators and private pilots, enlivened the final session of the Fourth National Aviation Clinic at Oklahoma City.

Most attention was focussed over a resolution, hastily passed, asking CAB deferment of economic regulation of non-scheduled air carriers, and that air freight carriers "be classified as a distinct and separate category for the purpose of both economic and safety regulation." The resolution was strongly supported by James Woolen, head of American Airlines air cargo division, who said that as a result of recent accidents he had been presented with a list of four pairs of changes to make on cargo C-47s, which were "totally unnecessary" for freight.

Leone Dissent—The resolution was passed with only one dissenting vote, by Robert J. Smith, Eastern Airlines, who said the resolution should not be proposed since it was a subject of disagreement between two groups of delegates. Following the passage, representatives of the other scheduled airlines present, also voiced themselves as in accord with Smith. This led American Airlines Vice-Pres. D. M. Moore to the old position of dissenting from the resolution which has own company representative, Woolen, had previously supported. Other airline representatives dissenting included Russell Cartwright, TWA, A. E. Ambrose, Continental, and Robert Moreland, Mid-Continental.

Another dispute arose over a resolution calling for eliminating practice of unscheduled forced landings, in the interest of safety. This position was challenged by Clarence Cornish, Indiana aeronautical adviser, who cited statistics showing that of 18 flights in non-scheduled aviation in Indiana last

year, three resulted from crashes during unscheduled forced landings. Other operators supported Curry, and private pilots and other state officials also voiced their arguments. The resolution was finally tabled after it was pointed out that its effect had largely been accomplished already by CAB regulations of the requirement.

Resolutions Asked For—Other resolutions asked for: CAB to institute action on the "excess landings" of applications for extension of air carrier service and on the building of violations, citing on Congress and Bureau of the Budget for additional funds to improve quantity and quality of CAB personnel; War Assets Administration to expedite release of leased airports, turning over surplus military airports to political sub-divisions but able to use them; life insurance companies to eliminate restrictive aviation clauses in new and existing policies; a coordinated national program for studying flying safety; encouragement of aviation education in the states; by providing adequate funds, ordered personnel and suitable material; and by adding teachers to obtain personal knowledge of aviation.

Ending of international flight clearance between U. S. and bordering countries, for non-commercial airlines, and provision of annual permits for such flights; continued operation of airport traffic control towers by the Federal government; full recognition of other pilot training under the GI flight training program; by Veterans' Administration and state educational agencies.

Outstanding Consensus—Establishment of standing legislative committees on aeronautics in all state legislatures and both houses of Congress; approval of PICAD act, seeking continuing and simplification of laws relative to aviation, quarantine, customs and clearance, towers, cities and counties to establish uniform markers; NACA to accelerate research to improve aircraft with

priority to noise reduction studies; Congress to provide a strong air power program including strong manufacturing industry, strong transport system, civil flying and research; Congress to provide increased research funds every town and city to develop one or more landing facilities, federal aid or no federal aid.

Still Other Resolutions

Deferred the recommendations of previous Aviation Clinics for inclusion of the armed services with a Secretary of Defense, and undersecretaries for Army, Navy and Air, considered as "unpatriotic and naive" individual actions to elect development as use of public or private airports considered that no additional changes be placed on the private flyer by at any level of government, pending a careful study of proposed changes by universities, foundations and government officials; discontinue the regulation of airlines by any commission or agency involved in regulating any other form of transport or industry; strict enforcement by Selective Service of airplanes and engineers engaged in aeronautical work.



DRY ICE TESTS:

Air shipment of dry ice is large quantities, hitherto considered impractical because of its high volatility, was found feasible in recent tests by Pan American Airways. PAA announced that the Liquid Carbonic Corp. of America, at whose request the tests were made, will air transport large shipments regularly to Latin America. Picture shows PAA's Chevrolet D-8 Jackson (left) and the manufacturer's research engineer, Robert G. Matthews, sampling carbon dioxide content of air inside the test plane.

SPECIAL AIR SERVICES

CHARTER

NONSCHEDULED

INTRASTATE

Nonscheduled Operators Ponder Landis Warning at Clinic

CAB head outlines carriers' danger of luxury trade without dependable public service.

Windsup of the recent fourth National Aviation Clinic at Oklahoma City showed non-scheduled operators pleased with resolutions adopted by the assembly to support of their interests but still pondering the full portent of CAB Chairman Landis' last and most drastic and somewhat chastening speech, which drew at length on these problems.

Landis described the future regulation of unscheduled air carriers as one of the most urgent, important and troublesome aviation now before the Board. He said, however, that CAB had been studying comments on the proposed revision of the non-scheduled exemption—Amendment No. 3, Section 282.1 of the Economic Regulations—and that "the Board may be able to take further action in the very near future."

Challenges Criticism—The CAB chairman criticized loose talk about the proposed revision, declaring that some of the statements which described the amendment as a move to "perpetuate selfish monopolies" warned the principle—authorizing the Civil Aeronautics Act. This principle, he explained, assures benefits to the public through efficient and regulated competition as air transportation sufficient to stimulate the development of services and techniques, but at the same time limits the growth and extent of that competition in order to provide a minimum of economic subsidization.

"This idea of protection," Landis declared, "does not mean protection for the selfish benefit of the carriers involved, but protection for the benefit of the public. Many of the non-scheduled carriers who claim to be aeronautical opportunists to serve what they see as an important public need are actually demanding the privileges of air

transportation without offering to assume the obligations to the public which should properly accompany those privileges.

Stom Grews—"Thus many of them seek to skin the oxen of peak traffic potentials which may exist between goods and persons, periods of time while awaiting the burden of providing a service upon which the public can rely between these same two points when the travel market appears less favorable."

During closing sessions of the clinic, and several days after Landis' speech, the assembly adopted a resolution forwarding the statement of non-scheduled air carriers from the CAB Economic Regulations now applicable to certificated lines pending further

experience in the noncertificated field. The resolution also recommended that sufficient carriers be classified as a separate and distinct category for the purposes of both safety and economic regulation.

Other industry developments—Chicago Airlines, Inc., West Coast Inland Express, which reported the resignation of Elliott Hirschowitz as president, however, who said that the position less than two months, said in a letter to Gene Aldinger, chairman of the carriers board, that when efforts in safety and personnel education proved that the airline was in line with the FAA, then Hirschowitz would return to the airline.

Trans California Airways of Tulsa, in its company of Trans California Airways, New York, was granted a certificate by the Civil Aeronautics Board to route between Tulsa and Phoenix, according to G. Ray Smith, president. Clark also reported that the airline, which was founded by Trans California's first much of operations with D-47s, would be a company had a several months' grace period of still to be.

For Airlines Air Transport, Inc., Manila, Philippine Republic, which had been a charter air carrier, had been scheduled operations from Manila to Los Angeles, California, via Guam, New York, Washington, Los Angeles, and Manila. The airline had been scheduled operations from Manila to Los Angeles, California, via Guam, New York, Washington, Los Angeles, and Manila. The airline had been scheduled operations from Manila to Los Angeles, California, via Guam, New York, Washington, Los Angeles, and Manila.

Public Order Airlines, Detroit, Mich., proposed two new F4U biplane flying boats. After approval and certification, the airline will be sought for the plane and they probably will be delivered of multiple times since F4Us' value to the United States Air Force.

San Francisco Airlines, Inc., Anchorage, Alaska, said CAB application for a scheduled service between Anchorage and Los Angeles via Inter-



FORD TRI-MOTOR DROPS 'SMOKE JUMPERS':

Recent field day demonstrations by the U. S. Forest Service before 200 members of the Society of American Foresters featured a parachute jump from a Ford tri-motor by the four-man fire fighting team pictured above. The "smoke jumper" bailed out over a mountain meadow 7,500 ft above sea level, some 20 miles southeast of Salt Lake City. The Ford is owned by the Johnson Flying Service, Muncie, Mo.

4 big reasons for selling AEROMATIC PROPELLERS



Latest Curtiss-Wright plane on the market, the Aeromaster, is equipped with Aeromatic propellers. (Cost of \$250,000.)—Here a Curtiss-Wright plane.

1 Larger Profit

An Aeromatic Propeller has a high market value... it sells more money for you... because it does so much to improve a light plane's performance.

2 Lower Sales Cost

Aeromatic Propellers are easier to sell than most high quality equipment... because their advantages are so basic, so simple to demonstrate to a prospect.

3 Build Better Customers

Aeromatic owners are better buyers of your other goods and services. They buy more because they're so sure... because they get more for their money.

4 Customers Sell Their Friends

Better take-offs, climbing, cruising and landings make Aeromatic Aeromatic owners eager to convince their friends of their benefits.

BETTER TAKE-OFF, CLIMBING, CRUISING, LANDING MAKE MANY PRIVATE FLIERS AEROMATIC PROSPECTS

Aeromatic Propellers have that ideal combination of yielding a profitable return on the initial sale... and helping bring more business your way thereafter. And there's the further advantage of selling an excellent item, too... since Aeromatic is the only fully automatic variable pitch propeller.

Without any controls or gadgets, the Aeromatic Propeller varies its own pitch in response to external forces... utilizes full engine power at rated speed... assures maximum performance under all flight conditions. That means up to 35% shorter take-off runs... up to 25% faster climbing... top cruising performance on maximum fuel consumption... long, flat glides for landing with a quick pull-up if pilot overbooks his field.

Performance like that makes Aeromatic Propellers easier to sell... increases individual customers. If the planes you are now selling do not already include Aeromatic Propellers as standard or optional equipment... write today to your distributor or manufacturer. Point out how Aeromatic can do the double job of improving flight efficiency and boosting profits for the glider you sell! Aeromatic, 610 Scott Street, Baltimore 5, Maryland.



THE PROPELLER WITH A HEART FOR EVERYMAN'S FLARE
Air-controlled automatic propeller



PRODUCTION

BUSINESS OUTLOOK

Aircraft Industry Has Sharp Eye On November Election Returns

Dramatic cuts in national defense budget will affect procurement that now means difference between profit and loss for backbone of manufacturing strength.

By WILLIAM KROGER

For an industry that ordinarily is not—and in theory never should be—dependent upon the political adherence of the congressional majority, aircraft manufacturing may be deeply affected by the results of the forthcoming election. This is the view of a great many observers in Washington, both within aviation and outside, and when aircraft manufacturing is merely one segment of U. S. industry, and who gauge the health of any enterprise by profit and loss statements and not by the size of backlog of orders.

These observers are torn between two theories, both having to do with military and naval procurement. One view is the view that should the Republicans dominate the next Congress they will be intent upon making a record on economy. This means lower budgets across the board, but particularly in that large, rather ambiguous field labeled "national defense."

Then too is the fact that the present administration already is committed to sizable economy cuts. The question mark is whether these cuts are a flash in the pan—whether they will be forgotten as the Democratic retains control of Congress. To their nervousness in the sphere of national defense have been in terms of personnel. Careful scrutiny still shows no indication to cut back existing procurement contracts. It is admitted that this last asset may come, but if it does it will not be for many months.

But on Public Works—If the best continues to be applied to economy, there may be another development, the chance of which may have been the recent go-ahead given to federal public works projects. Such projects are politically popular if the only chance were to be maintaining them or turning national defense expenditures, capital expenditures would lay their bets on public works.

Military and naval procurement from the aircraft industry becomes so important to industry analysts because they forecast that the current state of the industry depends upon a sort of reverse race between declining military business and faltering of commercial needs. In other words, to be a potential viable industrial firm, aircraft manufacturing must draw

most of its sustenance from the commercial market, or at least have sufficient commercial business that government contracts will not mean the difference between a profit and a loss. It is because that, essentially, the industry will be able to exist on commercial business alone. But until that day, military and naval orders are practically vital.

Lockheed Report—Particular significance is being attached to the semi-annual report of Lockheed Aircraft, which President Robert E. Gross reported in effect that profitability of more than \$50 million made the difference between an anticipated \$1,000,000 profit and the loss of \$400,000 that was actually incurred. This was on sales through June 30 of \$84,986,747. Observers are inclined to agree with Gross's prediction that Lockheed will not turn up with a loss for the entire year. Nevertheless, the Lockheed report is seen as the prime example of the philosophy stressing the commercial side.

On the other hand, Lockheed's troubles were due to excess orders—the control of the company—shortage of essential parts—which might have been lost in severance of the company were engaged primarily in flying commercial orders. Lockheed's delivery delays are due primarily to the strike in General Motors plants, suppliers of the P-48 engine, which occurred



HELICOPTER TEST TUBE:

A later version of Sikorski Helicopter Model K (ANTONOV News, Sept. 28) with an enclosed fuselage. Earliest test machine had an uncovered fuselage. This model is a laboratory for a four-place helicopter on which the firm is now working. It was recent tests of the Model K, it has made many flights at better than 200 ft. altitude and at speeds up to 60 mph, although no maximum speed and altitude trials have been made. Model K has an 85 hp Continental engine, while the larger Model J will have a 450 hp Pratt & Whitney power plant.



ROCKET POWER:

W. L. Williams, sales manager, Rocket Aircraft Co., San Diego, displays the 30-in.-dia rocket motor which powers the Aero's WAC Corporal and high-altitude rocket. One of the first successful rocket motors, this solid-fuel engine is fueled by liquid fuel that is sprayed around the firing chamber. (Aviation News photo)

early this year. While Allison is presently on schedule, production fell behind during the strike.

Billion Backlog—The fact that the engine industry has a large backlog of more than one billion dollars—great enough ultimately to assure health—is being disregarded in current calculations of the industry's immediate future. Some industry statisticians are beginning to assert the need for figures showing current income rather than backlog. They point to Lockheed and the Institute of Bellini Aircraft, which has retired from production because of the strain on its working capital due to inability to finish work in progress, to bolster the argument that backlogs do not meet payrolls.

Deliveries are believed to be increasing—the latest official figures, for August, show a sizable gain over July—with the general feeling that in the final two months of the year, the rate will continue upward. However, the chief progress in deliveries so far has been on the part of the lightweight manufacturers and it is expected that this condition will continue. Manufacturers of large planes are not figured to produce much for the commercial market until spring and summer of 1947. That leaves those examining the relative of military orders to the industry's business outlook with another fear.

It is a possible outlook of these airline orders which at present would be expected to enable the industry to fare reasonably well should military procurement be curtailed next year. United Air Lines President, William A. Patterson, said frankly that he doesn't look for many airlines to make a profit this year. The airlines are dipping into working capital probably faster even than the manufacturers. Airline manufacturers are showing market weaknesses.

Bad Weather Threat—If bad weather curtails airline revenue this winter as much as it has in the past, there is some opinion that the carriers might be forced to re-examine their orders for transport aircraft on a basis of ability to pay rather than a need for equipment.

Whether or not this situation will develop depends in some extent on the ability of manufacturers to speed production of transports now on order. Douglas co. is expected, at this point, to begin deliveries of DC-4s shortly after the first of the year. Martin will have the first 302 out the year probably in December—and not before. The first of the year, to PCA, early in January. Using the same technique of no prototype, Boeing anticipates its model 417 will be flown possibly in April with deliveries to airlines a few months later. Its Strato-cruiser will be ready in late winter or early spring. Lockheed's new Constellation, model 48, should be flown in buyers before year's end.

Here again, the less "if" in the material and parts situation, Allison is expected to become leader before the year closes. The Kaiser

plants are delivering about 12,000, 300 in of short this month, and Allison is striving to meet all its commitments. But there is some thinking that after the first of the year more aluminum will be directed into housing channels. There is also the likelihood of a shortage of aluminum as war-built reserves are eaten up.

Another factor that might retard deliveries is a further round of strikes far west across, not necessarily in aircraft plants as much as in supplier factories. Already the United Automobile Workers are talking of demands for pay raises and many of the parts and fixtures necessary for aircraft manufacturers come from companies which would be affected by any general UAW work stoppage.

British Mamba Has Tiny Power Package

One of the smallest and lightest aircraft engines for its power ever built is being readied for flight testing by British Armstrong Siddeley Motors Ltd. It is the Mamba, a propeller turbine which for take-off develops 1,800 hp, plus 328 lb of thrust or roughly 1,120 hp. Weight of the Mamba is 350 lb and its diameter is 27 in. Overall length, excluding jet pipe, is nine feet, three in. It is also noteworthy among British jet engines for being a axial-flow type. British jets have been generally of the centrifugal flow type, the design originally developed by Frank Whittle and which he made superior to the axial-flow jet which



Fairey Goblin Flight Tested for Navy: New primary trainer, XNQ-1, going through its paces at the Naval Aircraft Division plant in Maryland. Md. Equipped with fine and electrically retractable landing gear, outstanding features of this trainer are the retractable propeller and bubble canopy which gives both instructor and student maximum visibility.

was favored by the Germans and now also by U. S. builders.

First service use of the Mamba is expected to be in the Miles Martinet, four-engine transport. It will also power a later model Viking and a new W. A. F. trainer. Meanwhile, Bristol is bench testing a much larger propeller-turbine engine, the Taurus, which is designed to develop 1,350 hp at sea level at 300 mph. Flight testing on a four-engine Avon Lincoln bomber, where two of the engines will replace the outboard reciprocating engines, is due to begin shortly. These two have already completed more than 300 hours on a test block.

Vapor Car Heating Co. Allied With AirResearch

Vapor Car Heating Co. of Chicago, producing high-pressure temperature regulators, has gained a strong opening in the aircraft field by alliance with AirResearch Mfg. Co., Los Angeles, which will act as exclusive distributor for Vapor Cycle Mechanical Controls.

The distributorship was announced in Los Angeles by L. H. Gillick, vice-president of the Chicago concern, and Cliff Gervin, president of Garrett Corp., at which AirResearch is a division.

Vapor Car Controls will be engineered by AirResearch to meet individual requirements of aircraft manufacturers in a broad market covering electric power units, controlling air and cabin temperatures, and de-icing equipment.

Flight Test XNQ-1

New Navy primary trainer, the Fairchild XNQ-1, which was flight tested recently at Eggenston, Md., is a low wing, all metal two-place tandem model powered by a 9-cyl. Lycoming engine rated at 328 hp. Outstanding features are the Hamilton Standard controllable propeller and the one-piece bubble canopy, offering all-round visibility to both instructor and student. The canopy design was sponsored by the Bureau of Aeronautics to provide a standard for all carrier-based aircraft.

The XNQ-1 has a gross weight of 3,740 lb. Rate of climb is more than 3000 ft per min. and maximum speed about 170 mph. Wing span is 45 ft. 9 in., overall length is 27 ft. 11 in., and the height 9 ft. 10 in.

Link Raises Pay

Approximately 408 hourly-paid employees at Link Aviation Devices, Inc., Birmingham, N. Y., have been given pay increases ranging from 5 cents an hour upward, according to Edwin A. Link, president of the company.

All hourly employees receive 5 cents-an-hour cost of living increase. "Certain other" wage adjustments based on evaluation of jobs were made. The two increases will add about 15 percent to the Link payroll, it is said.

The 5-cent cost of living raise is the first general increase Link has granted since September 1945

when the company gave a 10-cent-an-hour increase to compensate for the post-V-J Day reduction of the week work from 45 to 40 hours.

McDonnell Backlog Reaches \$34,000,000

With the first production model of the F4U Phantom, Navy jet fighter, at the time, McDonnell Aircraft Corp. has started its 50th year in its new plant at St. Louis with its backlog at \$34,000,000, highest in the company's history.

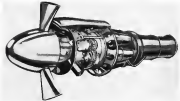
Indication of the rapid growth of McDonnell, the backlog has jumped from \$12,000,000 since the end of June. Encompassing the war as small plane design (June 30, 1941 backlog was \$3,440,000), McDonnell produced an aircraft and contracts in the new field of super-sound and guided missiles into a healthy business.

Anytime, Anywhere—Shortly after V-J Day, the once-until St. Louis company had the work to fill, and the cash to acquire the huge L-39, 968 sq. ft. Government-owned plant, just then open, during the war by Curtiss-Wright Corp. At this plant, the Phantom is being produced and experimental projects in new, high-speed fighters for both the Army and Navy are being carried on.

With the exception of its telescopic helicopter for the Navy, McDonnell is almost completely engaged in exploiting the new field of super-sound and guided missiles. A possible indication of the direction of the company's whole efforts is the announcement that it has been running an Aviation News for design engineers to work on planned and planned aircraft of transonic and supersonic speeds.

Another tip-off on the extent to which McDonnell is depending upon research for future profits is the recent announcement of a research program of the company and Washington University of St. Louis. The staff for this venture will consist of eight full-time engineers, presumably from the company, and five part-time university students working part-time.

Theoretical Research—Based on the results of the research to be undertaken was not disclosed, although Dr. Frank W. Bueche, head of the department of mechanics of the university's engineering school, states that the preliminary work will be theoretical and mathematical.



Little Giant Armstrong Siddeley Motors Ltd's Mamba, propeller-turbine engine gives a take-off thrust equivalent to 1,120 hp, although it is only 27 in. in diameter and weighs but 350 lb. This is the engine which will be installed in the jet versions of the British-built Viking and Martinet transports, as well as a projected Royal Air Force trainer.

Aircraft Components CORPORATION

Offers for immediate delivery, subject to prior sale, limited quantities of the following:

PROPELLERS

12330-471-403A-12
12330-473-437A-10
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12330-505-647A-9
12330-525-520T-A-9
10150-111-631A-9
2020-241-613A-9
2020-225-613A-15
10150-229-4101A-15
10150-229-4101A-12
10150-229-406T-A-15
10150-247-403A-12

90LA-78

43C13121

44C13097

BLADES

6101A-6 633A-12
6101A-12 633A-18
6101A-12 637A-6
6101A-12 647A-9
6135A-9 641A-9
6135A-15 650T-A-9
6167A-15 611A-9
630A-12 656A-18

GOVERNORS

1A2-G5 4K11-G10
1C2-G6 4K11-G61
1M1-G6 4K11-G61
1P1-GA 1E11-G2U
4G6-G23D-1 4K13-G2R
40R-G23D-1 4611-G1T
4K11-G1T

MAGNETOS

SP16U-7 877N-1
214LJ-5 DFN
SP14LH-3

CARBURETORS

NA-35A NA-75D
NA-75E 771-5822

Many other items including replacement parts for propellers and accessories on hand.

Aircraft Components CORPORATION

Authorized Agent for War Assets Administration

422 Montgomery Street,
Alexandria, Virginia
Phone: Alexandria 0909

901 N. E. 2nd Ave.,
Miami, Florida
Phone: 1-3127

tered in nature. McDonnell, however, is probing far ahead on many projects, with two radical AAF fighters in the works, as well as a re-engine engine.

In negotiating the research deal with Westland, H. J. James S. McDonnell, Jr., founder and president of the company is employing the same technique long found valuable by West Coast manufacturers who in times past have benefited from the facilities of the big Coast engineering schools. He is also following the formula that has proved successful for his company to date.

AVCO Consolidates Three More Firms

In a move seen preparatory to closing the merger between Lockheed Aircraft Corp. and Consolidated Vultee Aircraft, which is expected to be announced shortly, Aviations Corp. has consolidated three companies it controls but which have been operating separately.

The companies are Crowley Corp. and New York-based Avco, which owns 80% of the stock, and American Central Manufacturing Corp., of which it owns 61%. As an exchange of stock, these companies will be consolidated with Avco and reported as divisions.

This move is regarded as confirmation of previous reports that (Aviation News, Sept. 16) that Avco intends to withdraw from the aviation field and concentrate on consumer goods and transportation equipment. No announcement has been made as to the future of the licensing engine division of Avco which is not included in the merger of Consolidated with Lockheed.

Crowley, in addition to operating Cincinnati radio station WJW, manufactures home radios and refrigerators. New lines manufacturing home appliances and machinery, and American Central steel kitchen sinks and cabinets, and civilian jeep bodies. Avco, it is understood, will retain Consolidated's ACP-Bell Motor Co. and Bell-Motor Motor Car Co.

Ryan Adds Workers

Ryan Aeronautical added 300 workers during September, bringing the total to 1,625. Year-end goal is 2,500. Presumably all the new employees were for the experimental and casual divisions.

PRIVATE FLYING

SALES FIXED BASE OPERATIONS SCHOOLS

Improved Merchandising Answer To Personal Plane Sales—Parks

Veteran St. Louis Ecopure distributor warns against "planeless merchandising" in face of diminishing lightplane market.

By ALEXANDER MCKEY

Improved merchandising of personal planes is the subject of an intensive effort by Oliver L. Parks, president of Parks Aircraft Sales & Service, Inc., representative Ecopure distributor in the midwest, with headquarters at St. Louis, Mo., and with five other fixed base operations in the area.

Parks sees evidence of a declining market for personal planes now appearing, but asserts that better merchandising and not "planeless merchandising" is the answer.

"The market today for light airplanes is, even though extremely stagnant, really far better than we are getting for supplying it," he believes. "The tremendous appeal which flying has for all people, young and old alike, overrules all considerations including the economic. It evokes everyone's desire. All that is needed is the right airplane and the right approach."

Fixed Base Merchandising—Current high prices for lightplanes will be no substantial deterrent to volume sales if proper merchandising is used, he believes, and lower prices can come only with increased production.

Crowd Sales School—Parks last month conducted an intensive two-week sales school with his own staff force, as the fundamentals of selling personal planes, including selected prospects, approach, discussion interviews, conducting demonstrations and closing sales. Most lacking today, he asserts, are good judgment of prospects and the ability to close sales.

To ensure that new Ecopure dealers armed in his distributor territory are using the correct methods, he is requiring that new dealers and their salesmen must agree to attend a similar school which he conducts, or must conduct a school of their own, in cooperation with him. Dealers will be appointed in four groups, classified according to physical facilities and territory of their base. The quota of planes slated to

be produced a rapid decline in prices of used light aircraft "of all types except Ecopure" during the coming winter. The drop likely to be as much as 50 per cent, he believes. Meanwhile he hopes that improved factory techniques added to increased production, may make possible lower new aircraft prices in 1947.

Sales effort must be aimed principally at the higher income brackets until lower plane prices open a wider market among prospects with less income.

Selecting Salesmen—Most important single factor in lightplane merchandising is selecting salesmen with good character and real ability. Second is correct sales training. Other salient points which he cites are character of the product, ability of the sales organization to service the product, availability of facilities for use of the product, and, finally, the price.

Parks' personal sales formula developed during his successful selling years, calls for "significant 60 per cent of your time with old customers as well as new year after year attain substantial volume. Good service to them in selling them to use the product purchased, makes them salesman for you. And by becoming familiar with their groups you learn how to make new sales more smoothly."

Piper Cub Record

A total of 1,046,340 air miles have been flown in delivery of 1,715 Piper Cubs from January to September of this year, according to



EXECUTIVE PLANE UTILITY

Example of the utility of the executive transport planes which are being purchased by an increasing number of business firms, was the recent use by St. Louis Post-Dispatch Television Station KSL, of the company's new engine Bonanza to spend newly donated RCA transmitter pickup equipment from Central Airport, Camden, N. J., to St. Louis. Another air delivery on the equipment was taken by Capt. Bill Edg, manager of Balaban and Katz television station WBLD, Chicago, in his converted solitary transfer plane.

Ed Jabecki, in charge of the factory servicing system at the Piper Aircraft Corporation, Lock Haven, Pa.

The fastest delivery, 4,000 air miles, was flown to Anchorage, Alaska. The average trip is 818 air miles.

Irving Air Chute Co. Names Distributors

Partisan distributors recently named for Irving Air Chute Co., Buffalo, N. Y., is a result of a recent tour of the country by Harold G. Rogers, Irving vice-president in charge of sales, flown in an Ercoupe, are:

Pacific Aircraft Sales Co., New Orleans; Northwest Aviation Co., Portland, Me.; Omaha (Neb.) Aircraft Co.; Raccoe Turner Aeronautical Corp., Indianapolis; Southwest Parachute Co., Dallas; Philadelphia (Pa.) Aviation Corp.; Offices Aviation Corp., Nashville; Long Island Capital Aircraft Sales, Clinton, Md.; Buffalo (N. Y.) Aeronautical Corp.; Hamilton Flying Service, Dallas, Calif.; Santa Barbara Flying Service, Goleta, Calif.; National Aviation, Inc., Chicago; Schaefer Flying Service, Lexington, Ky.; Modern Aeronaut Co., Detroit.

The distributors will handle and service the complete line of Irving Air Chute including the new Chute Chute, which fits into the back of the airplane seat, and need not be worn, but is immediately available for emergency use.



SPECIAL EVENTS BROADCASTS:

New York Radio Station WOR has an arrangement with Radio Flyers Service, Tebetown, N. J., to use a new three-place Super Piper Cruiser for covering special events by broadcast from the plane, relayed, if covered by the ground station. Installation of airborne broadcasting facilities can be made in a matter of moments, on the back seat of the plane, from which Paul Kildner, WOR announcer, supplies the "hard-to-hear" account of what goes on. Similar arrangements may be worked out by other aircraft dealers with their local radio stations, provided they have suitable planes a little longer than the maximum two-place 65 hp. equipment which probably would not carry the combined load of pilot, announcer and necessary equipment.



LUSCOMBE 85:

A new de luxe 85 hp. two-place all-metal Luscombe Silhouette, which has a maximum speed of more than 122 mph, and cruises at 112 mph, has earned CAA type approval tests and is in limited production at the Dallas Luscombe plant. L. H. P. Klotz, president, announced recently. Resembling in many respects the 85 hp. Silhouette which is continuing in production at the rate of 15 a day, the de luxe 1947 plane has electric starter, generator, wheel pants, landing and position lights, sound-proofing and improved flight instruments as standard equipment. Plus side incident give 35 percent more visibility of sides and rear. The 75 hp. Silhouette lands at 46 mph, has 600-mph. cruising range, and 150-lb. useful load.

Minnesota Air Operators Form New Trade Group

Fledgling operators on Minnesota's airports, Irving flight instruction, wing aircraft, maintenance and repair, have formed the Minnesota Aviation Trades Association with Minneapolis headquarters at 611 Northwestern Bank building. Frank D. Cliff, formerly with Minnesota department of aeronautics is executive director.

Elected to the first board of directors are: E. H. Graft, Gopher Aviation, Inc., Rochester; C. W. Hinch, Hinch Flying Service, Minneapolis; J. J. Tinkle, Air Activities, Inc., South St. Paul; Harold Schindler, Minnesota Air Service, Mankato; Miller Wing, Arrowhead Airways, Hibbing; Robert Young, American Aviation Corp., Minneapolis; J. P. Lyndale, Lyndale Flying Service, Minneapolis.

Flying Salesman

Walter Thompson, Milwaukee cosmetic salesman, has expanded his sales territory to six states since he acquired his American Chief and hopes to take in additional territory soon. He makes the rounds to cosmetic supply houses in Wisconsin, Minnesota, Iowa, North and South Dakota and Utah, on a six-week flying trip. Besides the advantage of quicker transportation, Thompson reports that his plane advertises his business to his customers.

Navion Deliveries

North American Aviation last week began delivery of seventeen Navions to dealers throughout the United States. Including initial dealer deliveries 256 of the personal aircraft will go to customers who have ordered directly from the factory. Subsequently all production will go to dealers.

Red Tape Snarls Border Air Travel

International air touring by private planes is being hindered by official red tape on both the United States and Canadian sides of the border, Canadian sources reported recently.

American air tourists coming to Canada and Canadians going to the United States have to meet sharp customs regulations, requiring filling out of many forms in duplicate and triplicate, examination of all aircraft by agricultural department inspectors in the United States for possible importation of plant insects, as well as all other border regulations. In such cases customs and immigration officers must be notified ahead of time of arrival of aircraft and passenger manifests.

In Canada airports charge \$1 landing fee for private planes, but customs and immigration officers are on duty at major airports 24 hours a day. Sometimes to save Canadian airports must be made three days in advance.

Week-ending Canadian air tourists find that customs and immigration officers do not work week-ends in the United States, that the private plane pilot must pay costs of delays enroute to airport as well as transportation, usually involving a minimum of \$40 at each port. Cheaters of customs and other business organizations are understanding to have the border air red tape eased, to give private pilots flying their own planes the same advantage as



AERONCA CHUM IN FLIGHT:

The two-place straight-wing-control Arrows Chum, shown in flight, will go into production early next year at a new Aerona plant at an undisclosed location. The Chum has 115 mph top speed, cruises at 105 mph and lands at 49 mph. Its two-cylinder system is built under license from the Wankel Engine patent. Powered with an 85 hp Continental engine, it is all-metal construction except fabric wing-coverings, has 600 mile range with 22 gallon capacity wingtanks. (See AVIATION NEWS, July 1, June 17, 1946 and March 5, 1945.)

crossing the border that the motorist enjoys. Typical of many existing regulations is the fact that in Canada U. S. private pilots cannot take Canadian friends for a trip without obtaining special permission.

Reading Air Show Draws 50,000

More than 50,000 spectators watched the two-day Reading, Pa. air show, recently which included one of the most complete showings of personal aircraft yet

to be seen. Planes exhibited included several Aerona's, Bellanca Crusier 3s, Colver Model V, Ercoupe, North American Navion, several Piper Cubs, Republic Seabee amphibians, Rocket, Straton Voyager 150, two Canadian-built Canards, and a British-built Percival Proctor.

The show also included an hour's performance by 14 Navy planes, and flight exhibitions by civilian aerobatic experts, Melvin H. Mann, airport manager, and assistant show director, and it was planned to hold the shows annually at Reading, probably earlier, in the future, to take advantage of warmer weather. Show director was Randolph Ackert.



ESTES PARK STRIP:

Mountainair returned the Estes-Rocky Mountain National Park (Colorado) strip, which makes a specialty of tourist flights to see and photograph the scenery. (See AVIATION NEWS, May 30.) Photo shows a Cessna two-place 160 in foreground, with W. C. Reissner, president of the strip, and Ed Aviation Associates, Chicago, standing in the primary with Mounts in background.

FCC Will Accept Word On Aircraft Radio Check

Federal Communications Commission will now accept a manufacturer's certificate that radio equipment installed in new aircraft has been inspected and is operating properly, as a temporary 30-day authority for operation of the aircraft radio pending action on the pilot's formal application for a permanent station license, it was announced last week. The action was taken after a number of aircraft manufacturers advised that they were planning to market planes equipped at the factory with standard radio equipment. The new regulation (Rule

334) requires that a copy of the certificate be posted in the plane, and that the original be sent in to FCC with the application for permanent license.

Mattaponi Sky Club Offers Carriage Service for Pilots

The Mattaponi Sky Club, on the old Robert Brown estate at Canaan, Md., is believed to be the first aviation country club in the state and the only facility of its kind within a 200 mile radius. A \$300 first term currency is provided, with the identity of carriage service for fly-in visitors, from the field to the major house. Recreational facilities include tennis, swimming, softball, soccer, basketball, and fishing, and dining. The owner, C. Elwood Sager, has been using the strip for his own flying for several years, and was urged by friends to convert the facilities into an aviation club, he said.

Shell Oil Develops Fuel 'Beaver' for Airport Use

A 200-gallon mobile airplane refueling unit, called "the Beaver," has been developed for the Shell Oil Co., at Houston, Tex., to replace or supplement stationary pump-and-umbrella and large tanks, for greater servicing efficiency to small and medium-size planes.

Designed to travel over any surface on which a plane can land, the unit is 48 inches wide, 46 inches high and 130 inches long. Since its average height reflects its approximately 100-gallon capacity, officials expect the Beaver will handle approximately 20 jobs without refill. It requires only one man to operate it, and will bring the fuel to the plane in the field without necessity for long towing by pilots.

No Sudden Changes

No sudden or drastic changes of the planes now in use are in private flying, as reported by Gordon Streeter, vice-president of the National Aircraft Development Corp. personal plane sales manager. The planes may change hands but not every layer of the aircraft market, he expects among new buyers at reasonable demand. He expects public interest in extensive knowledge of basic, quiet landing facilities, lack of danger, and high cost of maintenance.

Briefing For Private Flying

LIGHTPLANE 'BELT'—A wing through Kansas, Oklahoma and Texas shows that the middleweight region is the home of a large part of the nation's personal aircraft industry. Wichita, Kan., has been an important aviation center, with Beech, Cessna and Cessna among the personal plane builders, and also Beech-Wichita, which is now making a collectible 1000 series plane and might well turn from this into personal aircraft. Also there is Fairchild at Stratford, Conn., and Pank at Caryville. On down the line is Piper at Fort Collins, Colorado at East, and Spartan at Tulsa, Okla. While Texas has Lomax, Texas Engineering & Manufacturing, Southern Aircraft, Weatherly-Campbell and American Aircraft at Dallas, and Glabe and Buehler at Ft. Worth. The 16 companies range from producers of midsize aircraft in the low two-engine category to transport. A check with manufacturers establishes the following reasons for the concentration in this area: Lomax aircraft designed for convenience of shipping or storage; good flying weather and terrain; good labor market; at the heart of the last national personal plane market in the nation.

MARKET TREND TIP-OFF—Proof that the seller's market for personal aircraft, is coming off, and that real personal plane salesmanship will be needed from now on, may be taken from the advertisement columns of some of the little local aviation newspapers which have sprung up about the country. Besides listing increasing quantities of 1946 airplanes for resale, the listings are carrying lots of distributors and dealers promising immediate delivery on planes which a short time ago had a considerable waiting list. This is due in large measure to increased production of planes in recent months, and to the fact that the big market for GI fighter planes is being well filled-up. A number of manufacturers are making no effort to seek any higher production than current levels and are following a policy of worldwide waiting.

HELICOPTER HOPPING—The first use of using a helicopter to hop between passengers, that has come to Beech's attention, was the use of a helicopter Air Transport's Sikorsky S-51 four-engine helicopter to hop between 15 to 16, at the central Reading, Pa. Air show. Passenger hopping has always been a good auxiliary source of income to operators, and a means of making new converts to the ranks of the air-minded. The obvious advantages of the helicopter as a hovering aerial platform from which to inspect, rent the conventional aircraft which is only a few feet above the ground, and to fly at a height which will be at the same time give the public passenger experience with the rotary-wing craft from which such great things are expected in the next few years.

AUTO-PLANE STATION—Plans for the first automobile-airplane filling station airport in Ohio, are being prepared by Columbus Aircraft Sales & Service, now operating at the Parks garage at Port Columbus. The station will front on North Cleveland avenue and Route 141, so that users can fill their tanks there, while planes taxi up from the field to the other side of the garage. The new field will be opened about the first of the year, and will include space for overnight air and motor tourists, a sports field and picnic grounds.

CURB FOR HOT FLYERS—New York city police department has 41 pilots and 12 motor cars as personnel and is asking for money from the city for four new airplanes, including two amphibians, and one amphibian and one transport plane in addition to the Sikorsky. Refused unless owned by the department. The new planes would be used to take heavy numbers of pilots visiting city regulations such as every layer of the aircraft market, he expects among new buyers at reasonable demand. He expects public interest in extensive knowledge of basic, quiet landing facilities, lack of danger, and high cost of maintenance.

—Alexander McFarland

FINANCIAL

Airline Shares Suffer Sharpest Setback in Stock Market Drop

Declines range from 31 to 63% below top 1946 prices as steady four year rise of air securities ends.

In the general market liquidation of the past few months, air lines suffered one of their sharpest set backs in history. Declines ranged from about 31 to 63 percent from top 1946 prices were recorded for the leading air carrier shares.

During the past four years, air transport securities had experienced a mediocre rise and outdistanced other industrial groups in the markets. The growth trends and future prospects of the airlines were being emphasized at liberal levels. It was only natural, therefore, that in any adjustment process of the market, air transport securities would be particularly vulnerable.

Eastern Loss 36%—Eastern Airlines showed the smallest decline, with a loss of only 33.8 percent. The constant good strength of Eastern, particularly when other carriers were running substantially in the red, proved to be a potent market sustainer force. This is further proof that in the final analysis, even a word of a company is one of the most important elements in determining market levels. The company's four-for-one stock split in May, 1946 has also added speculative favor and broadened ownership and market interest in Eastern's shares.

The greatest decline was experienced by TWA, of 62.6 percent from its best 1946 price. The unfortunate experience of the company with its Constellation has taken a heavy toll of earnings. For the first five months of 1946 the company lost more than \$1,300,000. TWA has \$40 million in debentures outstanding and which provide considerable leverage in reverse and endanger the equity when debts mount. It appears likely that TWA will face the full year 1946 in the red. The company does have valuable world wide routes which together with its domestic properties offsets the

company's stock considerable increase among speculative investors. **Colgate Decline 46%**—Colgate had one of the largest declines—some 68.1 percent. The stock market in Colgate's stock has previously accounted for its wide fluctuations. Including the \$1,000 shares sold last January there are only 300,000 shares outstanding with large blocks privately held. The recent decline demonstrates that the market is split in both directions in assessing price movements.

It is interesting to observe that in letters of complaint to the Securities and Exchange Commission, the company was criticized for the manner in which it handled its last stock sale. Stockholders were given a very short period in which to subscribe for additional shares at \$20 per share when the stock was selling around \$40. All subscribers were given a 10% discount by Price Jones and associates at \$20 per share. Any advantage accruing from this purchase has since been lost with the stock selling below \$20 per share. A word of another carrier which will probably finish 1946 in the red.

One of the surprises was the extent of the decline in Western Air Lines common stock—some 69 percent from its 1946 peak. About

40 percent of the 300,000 shares outstanding are owned by one stockholder with other large blocks reportedly in strong hands. The company has always enjoyed a high record as far as the better regular current. Opening of the West Coast line has given Western some favorable applications in obtaining a Seattle-San Francisco route. Evidently the deficit operations of the first half—\$497,194, compared to a profit of \$276,734 for the same period one year ago—has had its depressing effect.

American Common Down—American Airlines common stock declined less than half in market value. The company's earnings have made a remarkable recovery after deficit operations the earlier part of the year. The company's stock has developed to be one of the most active on the New York Stock Exchange, frequently appearing among the first ten in the price of volume. American also has the largest common stock shareholdings in the industry—6,432,136 shares. This was a direct result of the five-for-one common split in April, 1946. It is of interest to note that C. R. Smith's option on 250,000 shares of common stock at \$31.80 per share, now worth approximately \$2 million in under water at the present time. However, this call on stock retains its long-term value and is potentially profitable with any resumption of market appreciation in the price of American Airlines common stock.

Despite the recent decline in airline stock values, prices for the most part are still above the low points of 1945. And during 1945, prices were generally higher than in previous years.

The future trend of air line share values is largely dependent upon general market conditions

1946 Market Range Listed Airline Securities

Airline	High	Low	Last	Decline to low
American	100	10	11	40.0%
Eastern	100	10	11	40.0%
Northwest	100	10	11	40.0%
Southwest	100	10	11	40.0%
Transcontinental	100	10	11	40.0%
Western	100	10	11	40.0%
Colgate	100	10	11	40.0%
Continental	100	10	11	40.0%
Delta	100	10	11	40.0%
Eastern	100	10	11	40.0%
Northwest	100	10	11	40.0%
Southwest	100	10	11	40.0%
Transcontinental	100	10	11	40.0%
Western	100	10	11	40.0%
Colgate	100	10	11	40.0%
Continental	100	10	11	40.0%
Delta	100	10	11	40.0%
Eastern	100	10	11	40.0%
Northwest	100	10	11	40.0%
Southwest	100	10	11	40.0%
Transcontinental	100	10	11	40.0%
Western	100	10	11	40.0%

*To October 10th, 1946.

Air Cargo Carriers Seeking To Stake Vast Freight Claim

CAB hearing exhibits reveal expansion plans for leading contract carriers on scale of major airline operations; see 80/600-600 ton-mile years.

By CHARLES L. ADAMS

Drawing their lines for a battle of survival with the scheduled airlines, the nation's largest contract and noncertificated cargo carriers have disclosed for the first time their plans for continued dominance in the airfreight industry.

These blueprints for the future contemplate common carrier all-cargo operations of a scope that would soon give them portions well up among the leading domestic airlines, both from the standpoint of plane miles flown and gross revenues.

Battling their claims with comprehensive statistical records the cargo firms, in exhibits prepared for the all-important airfreight case hearing next month, have taken full credit for the phenomenal growth of the industry since the war's end. They will attempt to show CAB that but for the initiative and energy of the uncertificated companies—a strong case the scheduled carriers to action during recent months—airfreight still might be a nonentity in airline operations.

Cargo Battle—Looking forward to common carrier scheduled service, several of the airfreight applicants have reviewed trade potentials—and their own share in the field—which undoubtedly will be subject to sharp challenge by the presently-certificated airlines. The niches, with an uneasy eye on slumping passenger load factors, are counting on cargo to take up some of the slack and will continue to contend that airfreight can be handled more efficiently and economically in conjunction with passenger service.

Magnitude of the all-cargo services proposed by the airfreighters during their first years as certificated scheduled carriers is pointed

up by a comparison with current operations. Slack Airways, San Antonio, largest cargo carrier in the country, is now operating 38 C-46Es (Curtis Commanders) and in September was flying freight at a rate of about 15,800,000 ton miles annually. During its first year as a certificated operator, Slack proposes to use 38 C-46s to fly 67,257,000 ton miles.

By contrast, the nation's certificated airlines, in aggregate, flew only 1,676,600 freight ton miles during August—a rate of 30,000-600 ton miles annually. Slack estimates cargo revenues of \$10,607,100 (and \$673,696 net operating income before taxes) for its first certificated year, when it would carry freight at 12.5 cents a ton mile. The \$10,607,100 figure is

only about \$72,000 less than the total operating income of PCA, for 1945 and is more than the income of Northwest Airlines for the same year.

Slack Plans—During its second year of certificated operations, Slack hopes to fly 146,429,200 freight ton miles with an enlarged fleet of 90 C-46s at an average tariff of 12 cents a ton mile and during its fourth year 463,311,100 ton miles with an unspecified new type of plane at an average tariff of 5 cents a ton mile. The plane with which Slack wants to replace its C-46s by 1949 would have two or four engines, a 30,000-lb payload capacity, a 1,500-

Zimmerly Resigns

Best Zimmerman, founder of Memphis Air Lines, has resigned as president of the company to devote his time to his oil and gas business. Zimmerman, who founded the company in 1945, had been president since 1947. He was succeeded by Joe Lee, who had been vice president since 1947. Zimmerman had been president since 1947. He was succeeded by Joe Lee, who had been vice president since 1947. Zimmerman had been president since 1947. He was succeeded by Joe Lee, who had been vice president since 1947.

mile operating range, and a 300 mph. cruising speed.

Slack focuses on overall domestic airfreight volume. In 1947 it 1,846,000,000 ton miles at a 12.5-cent rate and \$606,600,000 ton miles in 1950 at a 5-cent rate. The 12.5-cent tariff, Slack states, would be comparable to a surface carrier rate of 16.5 cents a ton mile due to the reduced mileage by air.

Similarly, a 5-cent rate would be comparable to a 7.8-cent surface charge. At the 12.5-cent tariff, Slack and airfreight could compete directly on a price basis for a substantial volume of trade now moving by Railway Express. "At the 5-cent figure, airfreight could compete directly for the bulk of Railway Express and for a substantial portion of less-than-carload rail freight."

Flying Tiger Schedule—National Skyway Freight Corp., Los Angeles (The Flying Tiger Line), which operated 14,000 freight ton miles and 1,241,357 passenger miles in August and now has 18 C-47s in operation, hopes to fly 48,822,000 freight ton miles with 18 C-47s and four C-54s during 1947. Average tariff would be 12 cents a ton mile, and net income before taxes would be \$427,464.

U. S. Airlines, St. Petersburg, Fla., which owns 12 C-47s, has made estimates for common carrier operations on the basis of flying around 20,000,000 scheduled plane miles annually using 38 DC-3s, 38 Martin 202s or 20 DC-4s. (In July, U. S. was flying at a rate of about 1,000,000 plane miles annually.) Using DC-3s, U. S. estimated it would fly 48,294,000 ton miles annually assuming a 75 percent load factor—re-



MAINTENANCE SHELTER

Weather-proof concepts such as that shown above will be used by United Air Lines this winter to ease maintenance on its DC-4s. Outfitted with portable heaters and lighted with an auxiliary power supply, the concept consists of a cover on a tubular frame. Plane-side cover fits around the engine nacelle with a draw strap, and webhooks inside the shelter are used to secure parts and accessories back of the fire wall while under air protection.

sulting in a \$161,467 operating loss at 12.5 cents a ton mile.

Went Martin 202s—With Martin 202s, U. S. estimated 19,807,376 plane miles would result in 62,600,000 ton miles annually (15 percent load factor), yielding a net \$1,054 profit at the 12.5-cent rate. With DC-4s, the company estimated 18,456,228 plane miles would result in 123,000,000 ton miles annually (17 percent load factor)—yielded 48,822,000 at the 12.5-cent rate. U. S. also believes it can make a small profit (\$168,332) operating the DC-4s at a 75 percent load factor with an 11-cent rate—assuming the same annual scheduled mileage.

While Air Service, New York, which presently operates five C-47s and two C-54s, produced its estimates for scheduled service as a fleet of 12 C-46s flying 1,824,000,000 ton miles (14,857,714 plane miles) at an average rate of 12.5 cents a ton mile. (While was flying at an annual rate of about 1,150,000 plane miles in July.) Estimated profit before taxes for the proposed certificated service is \$352,000 annually.

All four carriers have made application for area to area routes and will push for authorization of this type operation to meet the need for flexibility in cargo service. Slack wants routes connecting four airfreight areas (Califor-

nia, Texas, Middle West industrial, and Eastern industrial). NRPAC has designated six areas: U. S., north, and south. Area services would be provided between any point in one area and any point in another area, but not between points in the same area.

A depot operating uncertificated airlines, together with a number of paper companies and PCA have applications pending in the airfreight case. Twelve scheduled airlines will provide direct opposition to the all-cargo route bids.

Seek Passengers

All American Aviation, Inc., the nation's only certificated piggyback operator, last week asked CAB for a certificate to carry persons, property and mail over five helicopter routes in the Philadelphia-Charlottesville and Pittsburgh areas.



PASSENGER PROBLEM:

While Martin Leroy, 648-lb. wrestler also known as The Champ, asked at Western Air Lines' Denver terminal for a ticket to Grand Junction, Colo., Truitt thought he should buy two tickets. Leroy thought otherwise—one person, one ticket, he insisted. Registration clerk told Leroy that he had to buy two tickets because that but 640 lb. is one seat width weekly stress lounge floor members. Cargo suggested a passenger seat or two be blocked out. Solution: an arm rest was removed, heavy company seat was one fire, and got to Grand Junction as time for his match.



Cargo for India. National Skyway Freight Corp., Los Angeles (The Flying Tiger Line), recently flew a \$1,800,000 cargo of Reynolds bird pest from the Chicago factory to LeGarde Field, where they were transhipped to Karachi, India, via British Overseas Airways. The shipboard cargo plane (above) which carried the pest to New York is one of 18 C-47s operated by NRPAC. The Flying Tiger will make their bid for a certificate authorizing scheduled common carrier operations in CAB's airfreight case hearing next month.

Airline Executives Challenge Patterson

United President predicts no excess firm to cost 40% hike in carriers' costs and traffic drops. Fye, Smith and Rickard back reply.

Top executives of Eastern Air Lines, American Airlines and TWA challenged recent predictions by United Air Lines President W. A. Patterson that air fares will have to be raised to meet a 40 percent hike in costs and a dip in traffic.

Two of the three officials who publicly countered Patterson's remarks, however, indicated that continued increases in wages and costs of materials and equipment might change their own viewpoint in coming months.

Patterson, in a statement at Portland, Ore., forecast that all commercial airlines will be facing increases by next summer and declared that last quarter 1945 holds little promise of profitable operations. He said his company's traffic was off about 4 percent during a recent three-week period and that cargo space was not being used.

Need 60% Load.—Before the war, Patterson stated, United could break even on a 65 percent load factor, but now requires 80 percent. He asserted that airline service this winter would be the poorest in years because of continued flight resulting from poor weather and the "scissors" of planes for landing at principal traffic centers.

Replying to the UAL executive, C. R. Smith, chairman of American, said that the volume of airline traffic would surprise some operators by its rise in 1947 just as it had in 1946, provided the charges for air transportation are kept within the reach of the average citizen. "I am convinced," he continued, "that it is not yet apparent that we must now seek higher fares."

Jack Fye, TWA president, declared he could not agree with Patterson's gloomy forecast for the future. He admitted there had been evidence of a downward trend in traffic during recent weeks, but said it was no surprise—rather one of the first indications of a return to normalcy in the airline business.

Don't Need Price-Raises.—"We do not feel the stimulus calls for price-raises," Fye continued. "The new 3-cent air mail rate should provide a substantial amount of increased revenue. It is probable that the traffic demand on our foreign routes will remain heavy for several years."

Fye admitted that TWA expects to show a loss for the year but said for the year but said it has hope for profitable fourth quarter operations. TWA's forecasts indicate that 1947 operations should be well in the black, based on present costs and rates, Fye added. His statement was made before a profit strike was out of TWA operations.

E. V. Rickard, EAL president, declared his company had ordered new equipment and in-

stalled new schedules to create more space for passengers. "The fact that seats are increasingly available—as has long been possible—does not mean we will be losing money next year," Rickard-back stated.

Northwest Profits For First Six Months

Improvement in the financial position of Northwest Airlines, despite a downward turn in airline revenues generally, is disclosed in CAB records covering the first six months of 1946.

NWA's January-June revenue was 96.7 cents per revenue mile, against operating expense of 84.6 cents per mile. Company officials say the 12-cent profit differential is well above the industry average. Net profit of the carrier was \$24,601 for the period. Of the total \$1,325,764 in operating revenues, \$1,467,258 was passenger revenue, \$266,122 mail and \$173,293 express.

Chief Hunter, NWA president and general manager, said passenger revenues represented the major increase. With additional equipment and more frequent service, passenger loads exceeded 70,000 in both August and September.

The carrier is anticipating the cost of its DC-4s in two years instead of four as planned by some of the other major airlines. The line has 11 DC-4s and six more on order.



WESTERN'S DENVER TERMINAL:

Petersen shows exterior and interior view of Western's Denver terminal at Denver, a 115 x 28 ft. re-modified Quonset hut with a 40 x 22 ft. passenger waiting room in use and other end is used for freight and other purpose. Cost of the project was about \$12,500. As eastern terminal of Western's route to Los Angeles, the Denver office handles about

250 passengers daily, against 350 a few months ago. Six flights daily over the mountain carry about 350. A second is delayed only because of equipment shortage. The carrier decided on the Denver hub installation after it appeared that the growing passenger load would cover the already completed terminal building at Denver Municipal Airport.

Money to finance the company's expansion into the international field, additional facilities, and fleets of Boeing Stratocruisers and Martin 303s and 303Bs on order will come from this month's sale of 27,936 shares of additional \$10 per share common stock to shareholders, at the rate of one share for every two held of record Oct. 18. After 15 days all remaining shares of the new issue will be offered to the public.

NWA officials estimate that total operating revenues will exceed \$30,000,000 in 1947, or 50 percent above 1946's total. They predict that revenue passenger miles will jump from an estimated 440 million this year to around 630 million in 1947, and probably reach 770 million in 1948, during at least part of which the new aircraft now on order will be operating.

Joint Terminal Group Plans New Operation

Washington National Airport is the likely third site for experiments in consolidated airline terminal services by the newly formed Airlines Terminal Corp., which is preparing to launch the cooperative venture at Willow Run airport, Detroit, and Greater Cincinnati airport, Kettering County, Ky. Ray Callahan, general manager of the organization, has gone to Willow Run to set up an office from which to direct the first operation in the test series, aimed at greater economy and efficiency through elimination of duplication of effort in handling aircraft on fields and in terminal buildings.

Actual organization of the corporation is \$500,000 on the basis of 5,000 shares of \$100 each. Stock will be held by the airlines. The advisory agreement under which the organization is being effected was proposed to the carriers at a recent meeting of the Air Transport Association. Roughly equal seats were received to assure the required minimum subscription of 3,750 shares of stock, and the organization was started.

Other airport developments in New York—Continued will be one of four terminals. First will be built in this state, second will be built in the New York City area, third will be built in the New York City area, and fourth will be built in the New York City area.

Albany, Okla.—The 110-acre Albany airport terminal was completed in 1945, and is being prepared for expansion. The terminal is being prepared for expansion. The terminal is being prepared for expansion.

Chicago—Chicago airport at Park Ridge, Ill., is to be expanded. The new terminal will be built in the Park Ridge area. The new terminal will be built in the Park Ridge area. The new terminal will be built in the Park Ridge area.



NEW TICKET FORM:

American Airlines is using the new ticket form shown above on many of its routes. Part of the ticket features a listing of multiple destinations to route passengers. Agent issues a flight number and departure date and time. Agents also contain fare and printed statement for refunds for unused portions. A number that allows 24 tickets required to fill out the new ticket required 24 for the old form.

Albany, Okla., which started operations in 1945, is now being expanded. The new terminal will be built in the Albany area. The new terminal will be built in the Albany area. The new terminal will be built in the Albany area.

Blackburn-Muskegon—Blackburn's proposed new airport will be located at Blackburn, Mich. The new airport will be built in the Blackburn area. The new airport will be built in the Blackburn area. The new airport will be built in the Blackburn area.

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air terminal to about four times its present size. Part of the cost would be covered by the Federal Government. The new terminal would be located at the intersection of Highway 1 and Highway 2. The new terminal would be located at the intersection of Highway 1 and Highway 2.

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These are generally twin-engine aircraft which can be converted to 5-place planes. They have great possibilities for executive or feeder-line transportation.



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OFFICE OF AIRCRAFT DISPOSAL

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A Courageous Pilot

A FEW DAYS before CAB Chairman Lewis called pilot error the major factor in airline crashes, Capt. Leonard H. Smith conceded personal responsibility for the crash of a United Air Lines DC-4 at Chazy, N.Y. In his deposition at a CAB hearing he said the aircraft probably lost altitude when he glanced away from the instruments while circling to land. Characteristically, he cleared his co-pilot.

CAB safety officers believe Capt. Smith's courage is unprecedented in airline accident history. His statement will save the government thousands of dollars in hearings, material tests, CAB and airline executives' time, and legal fees. The hearings might well have ended in no ascertainable cause. Another public announcement might have been made that the most experienced technical investigators in the country had failed to solve the mystery. The public can understand and has a certain tolerance for weather and unpreventable mechanical malfunctioning. But unsolved accidents linger in memory and build up

doubt in all air transportation. Mysterious accidents are probably the air transport industry's most vicious enemy because there is no insurance that other accidents due to the same strange causes will not occur at any time.

Captain Smith cannot be praised for negligence, and his ready honesty presents a knotty problem to his employers who must determine his future without discouraging other pilots from similar honesty. Nor can United permit the public to believe that a careless pilot is permitted to continue flying. Nevertheless, it is a safe prediction that by turning the spotlight of responsibility in this case to the cockpit he has warned other pilots of the danger of repeating his error, and has contributed to the saving of life as materially as any number of safety engineers who design our airplanes. The statement took special courage in light of the Air Line Pilot Association's current industry-wide struggle for salaries, up to \$16,250, a campaign for which the public has so little sympathy.

Must There Be A Lightplane Slump?

AS LONG as the Midwest leaves little doubt that the time has come to start energetic efforts to sell lightplanes, the buyers market is disappearing. The buyers market has found its production rate considerably below his capacity. An advertisement by an Oklahoma City distributor of another make of plane announced the arrival of a fleet of some 38 new ships for immediate delivery. Scores of still another well known craft are sitting about the country unsold. A few other companies like Piper and Cessna are still beyond demand, but their dealers are not lulled into inactivity by this fact.

Research of fixed base operators at the National

Aviation Clinic were characteristic. They varied from extreme pessimism about the long term future of private aircraft sales to continued optimism. From here on we might as well expect to see pessimistic pronouncements on the future which will be widely divergent. The individual estimates and forecasts will make interesting reading, and AVIATION NEWS will report them. But when it is all boiled down, the future—as in any other industry—depends on quality of product and caliber of salesmanship. Surprisingly few plane dealers will admit it.

ROBERT H. WOOD

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Other safety and performance factors of injection carburetors include freedom from gravity effects in dives, stalls and banks, accurate predictability of fuel consumption, and automatic compensation for temperature and altitude effects.

Stromberg PS Series Carburetors are a light-plane adaptation

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It will pay you to look into the proven performance and safety of Stromberg Carburetors as original factory equipment for light planes. An interesting descriptive folder will be sent upon request.

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Texaco Regal Starjak Special is approved against

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